

## POROUS MEMBRANES FOR USE WITH IMPLANTABLE DEVICES

### Abstract of the Disclosure

A membrane for implantation in soft tissue comprising a first domain that supports tissue ingrowth, disrupts contractile forces typically found in a foreign body response, encourages vascularity, and interferes with barrier cell layer formation, and a second domain that is resistant to cellular attachment, is impermeable to cells and cell processes, and allows the passage of analytes. The membrane allows for long-term analyte transport *in vivo* and is suitable for use as a biointerface for implantable analyte sensors, cell transplantation devices, drug delivery devices, and/or electrical signal delivering or measuring devices. The membrane architecture, including cavity size, depth, and interconnectivity, provide long-term robust functionality of the membrane *in vivo*.